TOXICITY PROGRAM REVIEW
STAKEHOLDER'S GROUP MEETING #1
JULY 27, 2001

PRESENT: Bill Taylor, David VanWie, Darold Wooley, Joe Payne, Bill Alsop, Chris Hall, John Barlow, Sandy Perry, Jay Beaudoin, Clarissa Trasko, David Miller, Deirdre Whitehead, Marvin Cling, Tom Connolly, Nick Bennett, Dan Kusnierz, Bill Zarolinski, Jennie Bridge, Steve Silva, Brian Kavanah, Dennis Merrill

1. DEP staff opened the meeting by thanking all the participants for their willingness to assist the Department in reviewing the toxics rule. Each individual's time and effort is a great help and asset in making improvements Maine's toxicity program. The purpose of the current review is simple - it's time. The rule has been in place for more than 6 years and has generated a lot of data that can help to improve the toxicity program. The stakeholders' group is an important element of DEP rulemaking process by making use of the group's knowledge and experience. For the process as open as possible, each member of the group is asked to network with constituents and coworkers to obtain a variety of opinions and ideas. The review of the rule is potentially a large undertaking. To keep things moving DEP, will try to stick to the schedule proposed in its advanced notice of intended rulemaking. It is in everyone's best interest to keep the process moving forward.

2. After a review of the proposed agenda for the day, everyone was asked to provide some expectations for the review process and his/her experience with the rule. The points made included the following.

- The available data should be used to improve the program and identify areas of waste.
- There is a need to update some policies.
- Clean water is important.
- The efficiency of the program should be improved.
- What benefit has the rule been to this point? Looking at the data will help.
- The cost of doing repeated testing to turn up on non-detects is a significant issue.
- Are the statistical approaches in the current rule appropriate?
- Dilution factors are an issue; perhaps other methods such as bioassay would be better measures of receiving water quality.
- Concerned that current practices for determining estuarine dilution factors over estimate actual values.
- The rule does not address sediment toxicity or a variety of sub-lethal effects.
- There should be more focus on actual receiving water quality. Some test species are not indigenous to local discharge conditions. The effects of other historic activities such as prior industrial sites should be considered.
- The public right to know is important; we should find ways to keep the public better informed beyond just providing numbers. Possibly a progress report to communities.
- Protecting the safety of food taken from waters is a major concern.
- Need to make more efficient, and scientifically based use of resources; smart production.
- The rule has made good progress, but some waters are still degraded.

- The process should look forward. There is the opportunity to face issues for the long-term.
- Focus on practical and doable environmental protection; avoid meaningless testing.
- Need to consider long-term effects such as sustainability, bioaccumulation and public right to know.
- Must assure that the rule is legally and scientifically defensible. Utilize new, streamlined procedures.

3. DEP did a brief review of the background of the current rule and its major parts. The rule is based on requirements in both state and federal laws that prohibit discharge of toxic compounds in toxics amounts. In the early 1990's DEP was sued for failing to put limits for toxics in a particular license. As a result, Chapter 584 was promulgated. Much of the discussion at the time was about dioxin and not too much attention was given to the basic toxicity program itself. As a result, no one was well prepared for the rule's requirements and it was not well received. A stakeholder process reviewed chapter 584 and the rule was ultimately replaced with chapter 530 in October 1994. In 1998, through another stakeholder group, a set of "protocols" was developed to help address some questions that had come up during the initial years of the rule's implementation.

   In discussion, it was noted that the toxics rule does not address biocriteria. The DEP has been working on rules to address this topic for a long time, and it was suggested that consideration be given to incorporating biocriteria provisions in the toxics rule. It is important that a mechanism be provided for evaluating the in-stream effects of discharges.

4. DEP provided an overview of the WET test results, summarizing the white paper on DEP's web site. About 2500 chronic and 3000 acute no effect tests are now in DEP's database. The amount of testing has remained relatively stable over the years. Tests have been evaluated both for all tests done and those in the last 5 years or so. The latter time period is generally used by DEP for determining toxicity status during permit renewals. There have been few WET tests reported as "less than". When such a report does occur, if it is below a facility's critical value, it is an exceedence. If a less than is reported above a critical value, it cannot be determined if it was an exceedence or not, and these data have been separated out. Overall, the data show more chronic exceedences, with slightly fewer in the last 5 years than for previous testing. Most exceedences occur at facilities with lower dilution factors, with most below a dilution of 40:1. Often, facilities in this group experience repeat exceedences over time. In an informal review of the facilities having exceedences, DEP could not determine any common factors other than dilution factor. The size or type (municipal or industrial) of facility did not seem to effect the occurrence of exceedences. Discussion of the WET test information included the following points.

   - There needs to be a means to identify tests that are invalid, and make sure that qualifications of test data are considered by DEP. Perhaps a subcommittee could look at WET QA/QC procedures. DEP noted that all test submitted are considered to be valid, and if there testing problems, the results should not be reported without prior discussion with the Department.

- While there seems to be a lot of tests in total, facilities often do only one test per year, and from this perspective, little information is generated.
- Existing tests do not provide any information on sediment impacts.
- Many WET exceedences may be due to ammonia; a look to see if there are more in colder months will help to evaluate this.
- A court suit invalidated part of EPA's WET program; we should explore how this may affect Maine.
- An analysis should be done to see if the frequency of exceedences has changed over time.
- Is there a seasonal difference in trout results, due to the size (and hardiness) of fish?
- Has DEP done any correlation between toxicity program testing and SWAT work?
- Because there may be seasonal differences, consideration should be given to testing a different seasons in alternating years.

5. DEP provided an overview of the priority pollutant (PP) test results. Over 108,000 individual test results have been recorded, representing more than 800 full PP scans. Prior to 1997, there was a problem with reporting limits, with a significant percentage of tests missing DEP's expectation. Since then, results have been markedly better. The actual significance of a reporting limit failure depends on the water quality criteria of the pollutant involved and the individual facility's dilution factor. Only a relatively small percent of tests for organic compounds result in detectable concentrations being found. Far more detectable amounts have been found for metals. The reporting limit analysis for mercury is skewed by the change in test methods. Most exceedences for PP have been aluminum, arsenic (human health), copper, lead, zinc or ammonia. No exceedences have been found with acid or volatile organic compounds, and base neutral and pesticides have had only sporadic exceedences. Similar to WET tests, most PP exceedences occur at lower dilutions and often repeat at the same facilities. Dilution factor seems to be the major issue in determining exceedences, and facility type or size is not significant. Most exceedences are found at dilution factors of 20:1 or less, except for human health criteria where the lower standards lead to problems at higher levels. The group's discussion of the PP data yielded the following points.

   - Some facilities do no mind doing testing that finds a lot non-detects since it provides useful information about the effluent.
   - What will happen to evaluation of past tests if we adopt newer EPA water quality criteria? DEP noted that the new criteria would likely be applied to prior tests.
   - We should be concerned with sediment toxicity and the possible change in metals species over time.
   - The use of test methods with lower detection limits may cause more findings of reasonable potential since the coefficient of variation could be increased.
   - Will new EPA test methods be required when they are available? DEP noted that one approach could be to require the new methods in low dilution situations, and allow them to be optional in other locations.
   - Is there a trend in the geographic distribution of arsenic exceedences?
   - We should compare current reporting limits with water quality criteria.

6. There was a general discussion of the major sections of the current rule to identify some major topics or concepts that will need attention or discussion in future meetings.

   Water quality criteria

   - The procedures to set alternate statewide criteria may be used more in the future and need to be reviewed carefully.
   - The rule should provide for better protection of sensitive populations that consume more fish/shellfish than EPA's assumed amounts. Adjusting consumption levels may be easier than trying to re-set the standards themselves.
   - EPA is starting to come out with simplified methods for setting alternate criteria.
   - The cumulative impact of multiple sources needs to be considered.
   - In absence of sediment criteria, water quality standards need to be on the conservative side. Others suggested that lack of knowledge is not always a cause to increase regulatory requirements.
   - Can biomonitoring be used as an indicator of sediment conditions?
   - Current sediment data shows widespread contamination and local hotspots. The source of contamination cannot always be documented and the sediment is an "integrator" of cumulative impacts.

   Testing requirements

   - The categories for testing frequency need work.
   - The effluent flow at the time of sampling should be considered. DEP noted this is done for priority pollutants on a mass basis, where flow is provided. WET and all RP are evaluated using concentration only.
   - In determining dilution factors, DEP needs to factor in special conditions created by islands.
   - The actual test data should be used as a guide for future testing requirements.
   - Dilution seems to be the best single means of determining testing requirements.

7. Review and next steps. The group generally was comfortable with a full day format and felt Friday is a good day to meet. For the next meeting, DEP will try to develop a list of the "big issues", with some alternatives for different positions. The comments will be consolidated into four areas paralleling the major sections of the rule. EPA will provide updates on agency positions and recommendations for some of the topics discussed during the meeting, including a position on the "weight of evidence" approach to balancing WET, PP and biomonitoring information.

   The next meeting will be on August 24, 2001 at 9:30 in room LW-4 of DEP's cnetral office (same place as the first meeting). An agenda and discussion materials will be sent to group members in advance of the meeting.